

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/07899

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B66B 9/00; G01N 27/82
 US CL : 187/391,277; 324/235,239,242

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 187/391,277; 324/235,239,242

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,731,528 A (YAMAZAKI et al) 24 March 1998 (24.03.1998), see figures 2,18,25A,25B.	1,7-13,18,19
A	US 6,633,159 B1 (ROBAR et al) 14 October 2003 (14.10.2003), see entire document.	1-20
A	US 5,402,066 A (HICKMAN JR et al) 28 March 1995 (28.03.1995), see entire document.	1-20
A	US 4,427,940 A (HIRAMA) 24 January 1984 (29.01.1994), see figures 5,6.	1-20
A	US 6,073,728 A (OLSEN et al) 13 June 2000 (13.06.2000), see entire document.	1-20

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"O" document referring to an oral disclosure, use, exhibition or other means

"A" document member of the same patent family

"P" document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search

Date of mailing of the international search report

06 July 2004 (06.07.2004)

27 AUG 2004

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